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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,625	02/05/2004	James Owen	BEAS-01483US0	5660
23910	7590	07/25/2007		
FLIESLER MEYER LLP 650 CALIFORNIA STREET 14TH FLOOR SAN FRANCISCO, CA 94108			EXAMINER SYED, FARHAN M	
			ART UNIT 2165	PAPER NUMBER
			MAIL DATE 07/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/772,625	Applicant(s) OWEN ET AL.	
	Examiner Farhan M. Syed	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,13,15-20,22-26,29-31,34,38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,13,15-20,22-26,29-31,34,38 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/14/07, 5/15/07, 2/6/07, 2/6/07</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 10, 13, 15-20, 22-26, 29-31, 34, and 38-39 are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 May 2007 has been entered.

Claim Rejections - 35 USC § 112

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 31 recites 'a machine readable medium', which the Examiner cannot find support for in the Applicant's specification.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 30 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 30, this claim recite a "computer data signal embodied in a transmission medium" These data signals are not tangible, and cannot tangibly embody a computer program or process since a computer cannot understand/realize (i.e. execute) the computer program or process when embodied on the data signal. Computer program or processes are only realized within the computer when stored in a memory or storage element (such as RAM or ROM). Therefore, a data signal does not meet the "useful, concrete, and tangible" requirement as set forth in *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02, and hence claims 25-32 are non statutory under 35 U.S.C. 101. Furthermore, the Examiner refers to the Interim Guidelines (http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf) for a further explanation of the use of signals and carrier waves.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10, 13, 15-20, 22-26, 29-31, 34, and 38-39 are rejected under 35 U.S.C. 103(a) as being anticipated by Shutt et al (U.S. Patent No. 7,058,958 and known hereinafter as Shutt) in view of a non-Patent Literature titled "*Enabling Dynamic Content Caching for Database-Driven Web Sites*" by Candan K.S., et al. (Proceedings of the

2001 ACM SIGMOND International Conference on Management of Data, 2001, Santa Barbara, CA, pages 532-543 and known hereinafter as Candan).

As per claims 10, 19, 29, 30, and 31, Shutt teaches a method for transferring content to a plurality of content repositories (i.e. *"The computer 110 may operate in a networked environment using logical connections to one or more remote computers, such as a remote computer 180. The remote computer 180 may be a personal computer, a server, a router, a network PC, a peer device or other common network node, and typically includes many or all of the elements described above relative to the computer 110, although only a memory storage device 181 has been illustrated in FIG. 1."* The preceding text clearly indicates that a computer network is the network environment where remote computers can communicate with a VCR, which is an instance of a server, where a database resides on. An ordinary person skilled in the art understands that a VCR resides on a database, in which a database resides on a server. Furthermore, because the databases reside on a network, it is clearly anticipated that content is transferred between databases when they are communicating.)(Column 5, lines 6-13), comprising: associating a schema (i.e. *"managed code uses the .NET Framework's common type libraries and its metadata "blueprints" for managing components"* The preceding text clearly indicates that a schema is a metadata 'blueprint')(column 11, lines 1-2) with the content (i.e. data)((see column 11, line 13), where the schema is metadata (i.e. *"managed code uses the .NET Framework's common type libraries and its metadata "blueprints" for managing components"* The preceding text clearly indicates that a schema is a metadata 'blueprint')(column 11, lines 1-2); and communicating with a virtual content repository (VCR) via an Application Programming Interface (API) to provide the content and the schema to the VCR (i.e. *"A configuration database 260 is accessed by the client programming model 210 and provides the topology of the various data servers 250 and databases 255 to the client programming model 210. The client programming model 210 wraps the databases 255, 260 as a virtual database virtual database 230. In other words, the*

model 210 views the application data servers 250 and configuration servers 265 as one virtual database with multiple databases 255, 260 hidden behind it. The virtual database 230 of the present invention can be divided up between different data centers and different switches, as described further with respect to FIG. 3. "The administration console 220 is in communication with the configuration database(s) 260, and retrieves the topology from the configuration database(s) 260, which are served by configuration server(s) 265." The preceding text clearly indicates that the process operable is the client programming model that interacts with a virtual content repository, which is a virtual database. *"An example of a method in accordance with the present invention is described with respect to FIG. 4. At step 400, an application (or API, for example) (referred to herein as a client application) instantiates the client programming model."* The preceding text clearly indicates that the mechanism for the process to interact is the API used to interact with a VCR, which is contained in the client programming model.)(Column 6, lines 14-23 and lines 30-33; column 7, lines 63-67) for inclusion in one or more of a plurality of content repositories, wherein the VCR integrates the plurality of content repositories into a logical repository (i.e. *"Using this configuration information, at step 430, the model creates local private data structures reflecting the logical to physical mapping of the data location and the association between replicas of the data. Along with this, a communication mechanism (e.g., TCP/IP port) is desirably opened to support remote administration."* The previous text clearly indicates that the logical to physical mapping of the data location is the VCR containing the at least first content, which is data contained in the data structure, a reference to the first content, which is contained in the configuration information, and the first schema, which is an instance of the private data structure.)(Column 8, lines 17-22), and wherein the API (i.e. application programming interface (API))(column 6, lines 2-3) presents a unified view of the plurality of content repositories as a single repository (i.e. *"In other words, the model 210 views the application data servers and configuration servers as one virtual database with multiple databases."*)(Column 6, lines 19-22); storing (i.e. writing)(column 8, line 51) the content (i.e.

data)(column 8, line 52) and the schema (i.e. metadata 'blueprints')(column 11, line 2) in one or more of the plurality of content repositories (i.e. application databases)(see Figures 2, 5-8).

Shutt does not explicitly teach identifying a content in at least one of a file system and a website by traversing the at least one of a file system and website.

Canden teaches identifying a content in at least one of a file system and a website by traversing the at least one of a file system and website (i.e. *"Figure 6(a) shows the dependencies between the four entities (pages, applications, queries, and data) involved in the creation of dynamic content. As shown in this figure, knowledge about these four entities are distributed on three different servers (web server, application server, and the database management server). There is no single entity which is aware of the page URL, the associated queries, and the underlying data used to answer those queries."* *"Various content delivery networks (CDNs) are currently in operation. These include Adero, Akamai, Digital Island, MirrorImage, and others. Although each of these services are using relatively different technologies, they all aim to utilize a set of web-based network elements (or servers) to achieve efficient delivery of web content"* The preceding text clearly indicates that a server exemplifies a file system and a website is exemplified by a web server that hosts many websites.)(Page 534, section 2.1; page 542, section 6).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Shutt with the teachings of Candan to include identifying a content in at least one of a file system and a website by traversing the at least one of a file system and website with the motivation to achieve efficient delivery of web content (Candan, page 542, section 6).

As per claims 13, and 34, Shutt teaches a method wherein: each content repository in the plurality of content repositories exposes a first set of services to plug

into the VCR (i.e. *"In other words, the model 210 views the application data servers 250 and configuration servers 265 as one virtual database virtual database with multiple databases 255, 260 hidden behind it. The virtual database 230 of the present invention can be divided up between different data centers and different switches, as described further with respect to FIG. 3. It is contemplated that servers 250 can reside in multiple data centers."* *"The configuration database(s) 260 preferably contains the topology of the data servers 250 and databases 255 (i.e., how the data servers are laid out and related to each other). In the configuration database 260, there is a mapping of the logical partitions ranges to the physical partitions (which is a list of servers and databases)."*)(Column 6, lines 17-26 and lines 32-39).

As per claims 15, 26, and 36, Shutt teaches a method wherein the step of identifying the first content includes: extracting properties from one of: 1) a file; 2) a hypertext markup language (HTML) document; and 3) an Extensible Markup Language (XML) document (i.e. *"Managed code uses the .NET Framework's common type libraries and its metadata "blueprints" for managing components. Managed code means that there is a defined contract of cooperation between natively executing code and the runtime itself. Managed code is written in the language of choice with its own syntax and type rules and its own compiler to map this syntax to the common language runtime, so varying language programming conventions yield identical class behavior."*)(Column 11, lines 1-9).

As per claims 16, and 37, Shutt teaches a method wherein the step of associating the first schema with the first content includes: acquiring the first schema from at least one of: 1) a file; 2) a hypertext markup language (HTML) document; and 3) an Extensible Markup Language (XML) document (i.e. *"The client programming model of the present invention can be used in conjunction with a .NET data provider for managed code clients and*

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front end applications which will thinly wrap the SQL Server .NET data provider while providing the additional benefits of the infrastructure (e.g., partitioning abstraction, and automatic command failover support, server connection validation, stale replica detection, etc.).”(Column 11, lines 10-16).

As per claims 17, and 38, Shutt teaches a method wherein the step of communicating with the VCR includes: persisting in one of the plurality of content repositories the content and the schema (i.e. *“The client programming model of the present invention can be used in conjunction with a .NET data provider for managed code clients and front end applications which will thinly wrap the SQL Server .NET data provider while providing the additional benefits of the infrastructure (e.g., partitioning abstraction, and automatic command failover support, server connection validation, stale replica detection, etc.).*”(Column 11, lines 10-16).

As per claims 18, and 39, Shutt teaches a method wherein the step of communicating with the VCR includes: preserving in one of the plurality of content repositories hierarchical relationships between the first content and other content in the VCR (i.e. *“Also shown above each server 250 in FIG. 5 (and in FIG. 6) is a representation of the physical partitions 251. In partitions 251, different ranges of hashes are shown. These hashes represent an additional (optional) layer of logical to physical mapping. When present, this mapping is used in the rebalancing of data when adding servers to scale-out. Other techniques can be used to determine partitions and add replicas. For example, the application can supply physical partitions to the client programming model by any technique, such as looking it up in a stored mapping or a determined mapping.”*)(Column 8, lines 60-67).

As per claim 20, Shutt teaches a system further comprising: at least one second process that interacts with the first process; wherein the at least one second process provides to the first process the content and the schema corresponding to the content; and a third set of services that enables interaction between the at least one second process and the first process (i.e. *"Using this configuration information, at step 430, the model creates local private data structures reflecting the logical to physical mapping of the data location and the association between replicas of the data. Along with this, a communication mechanism (e.g., TCP/IP port) is desirably opened to support remote administration."*)(Column 8, lines 17-22).

As per claims 21 and 23, Shutt teaches a system wherein: the third set of services provides a first function for directing the at least one second process to extract at least one property from the content (i.e. *"The model then determines the appropriate server to fulfill the client application's request, as described in further detail below. At step 420, the model receives this request from the client application and looks up a particular partition for the client application (or API). In this manner, the model gets a request, and the determines which server and/or database to use, based on the mapping. More particularly, the model reads configuration information from a known location. For example, configuration information is retrieved from a set of centralized configuration databases (e.g., databases 260 in FIG. 2) whose location is indicated in an .ini file (e.g., .ini file 245 in FIG. 2) or registry setting. An alternative implementation could store the information locally."*)(Column 8, lines 4-16); and wherein a property is an association between a name and a value (i.e. *"Using this configuration information, at step 430, the model creates local private data structures reflecting the logical to physical mapping of the data location and the association between replicas of the data. Along with this, a communication mechanism (e.g., TCP/IP port) is desirably opened to support remote administration."*)(Column 8, lines 17-22).

As per claims 22 and 24, Shutt teaches a system wherein: the at least one second process derives the schema from the content (i.e. *"Using this configuration information, at step 430, the model creates local private data structures reflecting the logical to physical mapping of the data location and the association between replicas of the data. Along with this, a communication mechanism (e.g., TCP/IP port) is desirably opened to support remote administration."*)(Column 8, lines 17-22).

As per claim 25, Shutt teaches a system further comprising: at least one second process operable that locates the schema corresponding to the content (i.e. *"More particularly, the model 210 reads the topology from the configuration database 260, so the model 210 can later determine the state of the application data servers/database (i.e., the virtual database 230 that comprises the multiple switches 300 and database servers 250). From this information, the model 210 determines the data servers/databases 250, 255 that the client application 200 should access to retrieve the requested data. Thus, based on the topology and the state of data servers/databases 250, 255, the model 210 routes the client application 200 to a data server/database 250, 255 that has the requested data and is in a "healthy" state."*)(Column 7, lines 44-55).

As per claim 28, Shutt teaches a system wherein: the first set of services and the second set of services share a content model (i.e. *"More particularly, the model 210 reads the topology from the configuration database 260, so the model 210 can later determine the state of the application data servers/database (i.e., the virtual database 230 that comprises the multiple switches 300 and database servers 250). From this information, the model 210 determines the data servers/databases 250, 255 that the client application 200 should access to retrieve the requested data. Thus, based on the topology and the state of data servers/databases 250, 255, the model 210 routes the client application*

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200 to a data server/database 250, 255 that has the requested data and is in a "healthy" state.")(Column 7, lines 44-55).

Response to Remarks/Argument

8. Applicant's arguments filed 18 July 2006 have been fully considered but they are not persuasive for the reasons set forth below.

Applicant argues:

(1) "Claim 10, as currently amended defines a method for transferring content to a plurality of content repositories,..."

The Examiner reminds the Applicant that the recitation "a method for transferring content to a plurality of content repositories" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

(2) "Shutt does not appear to disclose providing a schema to a virtual content repository nor does Shutt appear to disclose storing the schema in one or more of the plurality of content repositories.

The Examiner disagrees. The combination of Shutt and Candan teaches providing a schema (i.e. *"managed code uses the .NET Framework's common type libraries and its metadata 'blueprints' for managing components"*) The preceding text clearly indicates that a schema is a metadata 'blueprint'(column 11, lines 1-2) to a virtual repository (i.e. virtual database)(column 6, lines 14-23) and storing (i.e. writing)(column 8, line 51) the content (i.e. data)(column 8, line 52) and the schema (i.e. metadata 'blueprints')(column 11, line 2) in one or more of the plurality of content repositories (i.e. application databases)(see Figures 2, 5-8).

Hence, the Applicant's arguments do not distinguish over the claimed invention over the prior art of record.

Any other arguments by the applicant are either more limiting than the claimed language or completely irrelevant.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhan M. Syed whose telephone number is 571-272-7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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FMS



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